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T H E

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SEA-SIDE HOMES: AND WHAT LIVED IN THEM.

BY DR. ELLIOTT COUES, U. S. A.



MILE after mile of sloping sea-beach occupies the front of a low island on the Carolina coast, and contends, along a foamy line, against waves that ceaselessly advance, to be continually repulsed; a sea-front flanked with sand-works blown by the wind into tumuli over the trenches, where lie buried countless shells that will only come to light again as fossils, when the books of to-day, and those who wrote them, have become indistinguishable dust; beyond which there is a vast bed of oozy mire hidden by the rank growth of reeds that rustle and surge with every breath of wind. Among the sand-mounds, defended by these buttresses alike from the open violence of the sea and the insidious approach of the marsh, are sequestered spots, bestrewn with shells, carpeted with slender grasses whose nodding spears trace curious circles in the sand about their roots, with here and there a half-buried vertebra of a stranded whale, or the rib of some ill-fated vessel, telling a tale of disaster by sea,—spots so secluded that the measured cadence of the wave-beats, confused by this and that avenue of approach, only enters with an inarticulate murmur. Here is the chosen home of

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two beautiful birds that come and pass the summer months together; a peaceful home, secure, it would seem, from danger of whatever sort; a house that falls not when the rain descends, and the floods come, and the winds blow, though it is built upon the sand. Alas! that even were it founded upon a rock, the gates of ornithology should prevail against it.

It is late in May—the last week of a month that is not, in this warm climate, “a pious fraud of the almanac,” as it is in New England—and the birds are busy now. Six weeks ago they came from their winter retreat in the far South, to this well-remembered spot. The Least Terns came dashing along high in the air overhead, their pearly white forms wavering between the blue water and the bluer sky, ruling both and uncertain which to choose; and saw, with cries of exultation, the end of their long journey. As swiftly, yet more secretly, the Wilson’s Plovers flitted along the shore, half concealed by colors that repeat the hue of the sand, from one headland to another, across gulf and river’s mouth in succession, till they too greet their homes with joyous notes. Separated for a long interval, or at most little heeding each other, the Terns and the Plovers are to come together again, and rear their young under the shadow of each other’s wing. While they are flashing through the clear air, or skimming lightly over the mirrored beach, and occupied, after mutual recognition, each in their own way with the preliminaries of the great event of their lives, let us see what manner of birds they are. Then, when we come to look in upon their homes we shall not be visiting strangers.

The Least Tern is, as its name implies, the smallest bird of its kind in our country; but it has several near relatives in other parts of the world; cousins so nearly alike that they have often been mistaken for each other. They form a race, or “subgenus,” as the naturalists call it, that is distinguished from other Terns by diminutive size and dainty form, even among a class of birds all of which have ex-

quisitely moulded shapes, and by a crescent of pure white on the forehead, sharply defined in the jetty black of the rest of the crown. They are delicate pearly-blue above, with snowy-white under-plumage, that has an indescribably soft and silky lustre; the long-pointed outer primaries, that cleave the air so deftly, are black, silvered with a hoary gloss of exceeding delicacy; the bill is bright yellow, tipped with black; the feet are of the same color, and are likewise tipped with the black claws. The little bird of our country answering to this description, has a variety of names in and out of the books. In many places it is called "Striker," from the way it has—after hovering in the air, its slender bill pointed straight downward, its clear eyes intently surveying the water below, and at length fixing upon some unlucky shrimp or minnow—of dashing impetuously down to secure its prey beneath the water; and just possibly, its scientific name, *Sterna*, as well as the English derivative, *Stern*, or *Tern*, may be traced to a classic root (seen in *sterno*, "to strew or scatter," and also "to throw down") and have its origin in this same habit. A more apt and elegant designation is that of "Sea-swallow," by which this and other species are universally known. They are all, indeed, swallows of the sea, replacing over the waters those familiar birds of the land, and having many features in common. Popular language has, as usual, caught the idea of these striking points of resemblance, and caged it in an expressive word. Even the written history of this bird's names is not devoid of interest; for a study of the various words unfolds a story of human thought. Thus our forefathers in ornithology called the bird the Least Tern (*Sterna minuta*), because they did not know it was different from the European species of that name; but it is, nevertheless, for the pearl-blue extends over the tail instead of being confined to the back and wings, and the size of the bill, and of the white crescent, are not the same in the two species. Nuttall gives it as the Silvery Tern (*S. argentea*); a pretty name, and one very suitable,

but founded upon the wrong premise, that our species is the same as one that lives in South America. When Dr. Gambel found out that it was different from both these species, he bestowed upon it the title of the Bridled Tern (*S. frenata*), another very distinctive name, that would be well applied, were it not for the fact that M. Lesson, a French ornithologist, had previously called it the Antillean Tern (*S. antillarum*), because it is found in those islands in the winter. So we have no choice in the matter of a scientific name, in which there is not the same license as in the case of our common designations. But let the latter be as various as they may the little bird is always the same. It spends the winter in Central America and about its islands; when spring opens it courses northward to visit us; a few extend along the Pacific Coast, some up the Mississippi and its tributaries, almost to their very sources; and more along the shores of the Atlantic. Some of the latter go as far as New England, but there are attractions all along, and detachments drop off by the way, stopping here and there, till the ranks are fairly decimated before the most adventurous birds make their final halt. But "their tricks and their manners" are pretty much the same under all circumstances, and what these are we shall presently see.

A very different bird is Wilson's Plover; a wader, not a swimmer; as they say, in words as long as the bird's legs, a grallatorial, not a natatorial, species; which simply means that the little bird is content to run along the sand and dabble with bill and feet, in the wavelets, instead of boldly dashing in among the breakers, like a Tern, for instance. It belongs to a genus well-named *Ægialitis*, which signifies a "dweller by the sea," and has never been known to forfeit its right to the name. We have several other species of the same group. The commonest and most widely diffused of these is the "Killdeer," that everybody knows throughout the length and breadth of the land; the Ring Plover and Piping Plover are two others, familiar to all New England-

ers. Wilson's is characteristic of the South Atlantic coast; it only incidentally, as it were, strays northward as far as Massachusetts, and is, consequently, the least generally known of the four kinds; but once seen it can never be mistaken afterward. It is smaller than the Killdeer, but larger than either the Ring-necked or the Piping Plover, to which it is very similar in coloration, if not in the precise tint. The under parts of all three are white; the upper parts of Wilson's are much darker than those of the Piping, and yet a trifle lighter than those of the Ring Plover. A collar of pure black crosses the white of the breast; a crescent of black occupies the crown between the eyes, separated from the bill by the white forehead; on the nape and sides of the head the grayish brown merges into a clear warm buff. This, it must be remembered, is only the nuptial plumage, and of the male bird; the latter, at other seasons, and the female at all times, have these black bands replaced by buffy brown; and this is the plumage in which the bird is oftenest described. But the greatest peculiarity remains to be noticed. Wilson's Plover has a very large entirely black bill, while both the Ring and the Piping have a very small bill, orange yellow at the base, tipped with black. For the rest it wants the bright-colored circle around the eyes, formed by the margin of the lids, that the other species display during the breeding season. Its eyes are clear brown; its legs livid flesh colored, and longer than those of the others; it is not half-webbed like the Ring Plover—only about as much so as the Piping. Its large black bill gives it a singular expression, and undoubtedly corresponds to some difference in the nature of its food, if we could only find out exactly what. Such is the bird that hurries along the coast from the South in April. Upon their arrival they gather in small flocks, of from half a dozen to a score or more, and ramble over both the clean sea-beach and the muddy flats in search of food, sometimes straying into the adjoining salt-meadows if the grass be short and scanty enough not to

impede their way. They are naturally gentle and confiding birds, thinking no evil, and prone to take others to be as peaceable and harmless as themselves; but they have only too often to learn wisdom by saddest experience of broken limbs and maimed bodies, and to oppose treachery by wariness and caution. In the spring, if not at other times, they have a note that is half a whistle, half a chirrup, and sounds very different from the clear mellow piping of either of their nearest relatives. After a little while spent in recuperating their energies after their long flight, in putting on their perfect dress, in sham fights and ardent pursuits along the strand, more pressing duties call them from the water's edge to the recesses of the sand-hills. There we shall find them "at home," no longer in flocks but in pairs, and keeping house with the Sea-swallows.

The spot is indicated by the fleecy cloud of the Terns flocking the air overhead. We toil on over beds of loose dry sand, in which our feet sink and slip backward, and gain the recess among the mounds. The ground is here more firm and even; the wind has swept it clean of superfluous sand, and piled up the sweepings here and there in odd nooks; the rains have packed it tight and washed every shell and pebble clean. The most careful housekeeper in the world could make her home no more tidy than the wind and rain have made this shelly dwelling-place of the Terns and Plovers. As we walk on, we see that other visitors have been before us, each one leaving its "card" engraven on the fine sand. Here goes a curious track straight up and over a sand hillock, as if half a dozen little animals had ran a race one after the other, on stilts, the points of which pricked into the sand and formed a band of indentations four or five inches broad. These are the footprints of only one creature, however,—the sand-crab, a curious little fellow, with a square body, and eyes upon the ends of two poles that stick straight out when wanted for use, and shut into the shell like the blades of a pocket-knife, when their owner goes to

sleep,—a singular crab indeed, mounted upon a wonderfully long set of eight legs (to say nothing of two claw-nippers), all of which he contrives to move at just the right moment, as if he were playing a tune upon piano keys, and so plays himself sidewise over the sand with marvellous ease and celerity, the only wonder is that he does not forget a leg in his haste. He is a very grallatorial crab, and lives in the holes in the sand we see all about, just like a prairie-dog. There is a tortuous trail along the sand, where a water-snake, perhaps a *Nerodia sipedon*, crawled out of his pool in the marsh beyond, to enjoy the sun's rays, or possibly on an eggging expedition like ourselves. Here is a fainter line, straight as an arrow, looking just as if a pencil had been drawn along a ruler's edge; it is the mark left by the long slender tail of the little striped lizard, and if we look closely we shall see it bounded on either side by a succession of faint dots where the creature's toes barely disturbed the grains of sand. There again is a curious track, a pair of rounded depressions, side by side, and hardly more than an inch apart, outside of which, in the intermediate distances, are another pair, wider apart, and much longer. It is clear that a Marsh Rabbit has passed this way, planting his fore-feet straight downward, and drawing his hinder ones leisurely after, half squatting at each step, as he loped out of his home in the bushes to nip the beach grass for a change of diet. And so we might go on reading signs as plain as print; but the birds are by this time alarmed as they never were by former visitors. They know by intuition that we are not one of them, though among them, and that our coming bodes no good, however much we may affect to care for them in an abstract way. So in a moment all is changed, and confusion reigns where were peace and quiet. The quick-witted Terns were the first to sound the alarm; they had watched our approach, and straightway changed their heedless and joyous cries to notes of anger and fear; at the signal the sitting birds had arisen from their eggs and

joined those already overhead. The male Plovers, off foraging for insects and minute sea-creatures, surprised at the noise, had come hurrying home, only to have their worst fears confirmed, and be met half-way by their terrified mates, who had stolen quietly from their nests when the Terns deserted theirs, instinctively looking for comfort and protection where it had never been denied before. It is a strange sight, and a mournful one, already too painful to be wholly interesting, and the tragical end has not come yet. The Terns seem not to know what fear is; they dash about our heads, plunge as though to strike us, recede a little, approach again, always keeping in a cloud above us; and from every throat come notes of anger and fear and beseeching combined; a very Babel of tongues. The Plovers are more timorous; they are flitting to and fro, low over the sand, at a little distance, in anxious groups of three or four, with indescribably touching appeals for mercy to spare their homes; now alighting and squatting in hopes they are still undiscovered, and again running swiftly along, too frightened for a moment's rest. A dark day indeed for the poor birds! Bird's-nesting is a sad business, at best; it makes little difference to the birds, it is to be feared, whether their eggs are stolen by school-boys, to be played with and forgotten before the Saturday afternoon is over, or by grown up people to make books with, and be kept thereafter in cabinet drawers. What difference there is, seems to be that the boys let the old birds off altogether, and are satisfied with robbing the nests; while the larger children rob and then shoot the parent birds, to "authenticate the specimens."

Where are the eggs? Here, there, and everywhere about the sand lie the Tern's, till we are in danger of treading on them unawares. There are not so many of the Plover's, though still plenty for our purpose; but both kinds are nearly of the same color as the sand, and their markings conform to the unvarying variegation of color of the shelly strand, so that it is an easy matter not to see them, even

when looking straight at them. Here is a set of Plovers' eggs, and there, not a yard off, one of Terns'; we may sit down and examine both together. It may be best, however, after noticing carefully the nests and their surroundings, to gather a lot of each kind of egg, and carry them home with us for more particular examination.

Properly speaking there are really no "nests" in either case. Neither the Tern nor the Plover has any architectural instinct, because none is needed. Both lay their eggs in a slight hollow in the sand, about four inches in diameter; but even this hollowing is sometimes scarcely appreciable, and the eggs seem as if dropped by accident on the ground. It is probable that at first no hollow, or only the slightest one, is made; and that subsequently the depression becomes better defined by the movements to which the eggs may be subjected, and the weight and motions of the parent birds or young. In some instances there is a difference between the two kinds of nesting-spots, happening thus: the Plovers sometimes lay in a scanty tuft of slender straggling grass, which was not done by any of the Terns, at this breeding-place; and again, the Terns frequently line the depression with little flat bits of shell, which the Plovers have not been observed to do. Sometimes the pieces of shell seem to have been lying there before, and thus only to have been used as a nest-lining by accident as it were; in other cases the regular disposition of the fragments in a circle, leaves no doubt that they were carefully arranged by the birds. This method of making a shell-nest is just like that of the Auks and Guillemots, that breed in cracks in the rocks, and raise a little platform of pebbles to keep their eggs from the wet; and is, doubtless, for the same purpose,—to defend the eggs from whatever moisture might be in the sand. Still, of two Terns' nests, side by side, one may have the shells, and the other be without them, or at least not have them specially arranged. Neither bird uses any dried grasses,

sea-weed, or other soft pliable substances, in this particular locality at least.

The number of eggs deposited must next claim our attention; and in this matter, as seeing is believing, we must differ with some very respectable authorities. It is a common belief, circulated from one writer's book to another's, that Terns generally lay three eggs, and the little Sandpipers and Plovers always four. The belief is true enough, as a general rule; but every rule has its exceptions, and here are two notable ones. The Least Tern, breeding in North Carolina, generally lays *two* eggs; sometimes only *one*; rarely (if ever) three; and never four; at any rate, we have not found more than two in any instance, and our experience may count for something, seeing that we have just explored a tolerably extensive breeding place. Still it would be injudicious for us to proclaim that the bird may not lay three in other localities. But as for four eggs from one Least Tern at a single laying we flatly refuse to believe it till we see it. If any one is inclined to object to the assertion that the *one* egg, found in some instances, would have been succeeded by another, we can discountenance the assumption by replying that the solitary eggs in question were nearly hatched when found. Again, Wilson's Plover lays three eggs,—no more, no less, as far as our observations have gone, with respect to nests actually found. The suggestion that the fourth one would have been laid in due time is combatted by what has just been advanced in the other case, namely, the mature condition of the embryos. Yet we know the bird sometimes lays four, because we have killed females just going to lay, finding one egg in the oviduct, almost ready to be expelled, and the three others in a highly developed state, still attached to the ovary. The time of laying varies a great deal, in the cases of both the birds. They may deposit eggs at any time between the second week in May and the first in June; the greatest number lay about May 20th. Some of the Terns may even commence

earlier, as young birds, already quite strong of wing, are to be seen flying about by the 20th of June. Early in the latter month, nearly fresh eggs, eggs nearly hatched, and newly fledged young, of the Plover, may all be observed. These little nestlings are very pretty and very curious specimens of early birdhood; they can run quite cleverly over the sand as soon as fairly dry from the egg, if not "with half a shell on their backs," as is popularly supposed to be the case with young partridges; and are rather difficult to find, from their knack of hiding, like their parents, by squatting closely on the sand. Their legs seem disproportionately long, like a young colt's. They have black bills, like their parents, from the moment of birth. They are covered all over, except a little space on the neck, with woolly down, that is white below, and beautifully variegated with black and buffy brown on the upper parts. The newly fledged Terns are very different from the old ones, being curiously mottled above with different colors, in which the pearl-blue scarcely shows; without a black cap, the head being white, except some slaty feathers over the ears and nape; the bill blackish, and the feet dull-colored, and the tail much less forked. They cannot be mistaken for any other species, however, for there are none so small as they.

We have now only to examine the eggs we have collected; and here again we must give the specimens themselves precedence over authorities. If Nuttall, for example, had had ours before him when he wrote of the Least Tern, we should not now read in his Manual, that "the eggs, three or four in number . . . are about one and a half inches, by three-quarters of an inch in breadth." Ours, we see, are considerably smaller than this, and of a different shape from that implied by these dimensions, averaging only 1.25 inches long, by just 1.00 in breadth. The longest and most pointed one is 1.30 by 1.00, the shortest and roundest 1.20 by .98; these measurements probably representing very nearly the extremes of variation. The ground color

varies decidedly; the differences may be reduced to two kinds, in one of which the color is very pale clear greenish-white, and in the other pale-dull drab or olive whitish, the latter apparently due to the mixture of a little brownish in the green. These colors are speckled all over with small splashes, irregular spots, and dots, of clear brown of several shades; and others of a paler, illy-defined, somewhat lilac, hue, appearing as if it were brown *in* the shell, instead of on the surface. The markings are often very evenly distributed over the whole egg, but more frequently, perhaps, tend to form a circle, at or around the larger end, particularly in those cases where they are large and splashed. The point of the egg is often free from markings, or with only a few small dots.

The Plover's eggs are of the same general pattern of coloration as the Terns', but are larger, and otherwise conspicuously different. The variation, both in size and shape, is very considerable; thus one measures 1.45 by 1.05, and another only 1.22 by 1.00; a variation not only of absolute size but also of relative length of the long and short axes, resulting in a very decided difference of shape. All agree in having the greatest short diameter near the large end, as usual among birds of the order, and the difference is mainly due to a greater or less elongation and pointedness of the smaller end. The shorter axis varies only within narrow limits; but even in eggs taken from the same nest a difference of .15 may be observed in the lengths of the long axes, with, of course, a corresponding discrepancy in contour. The ground color is difficult to name; it may be called pale olive-drab, more decidedly inclining to a greenish hue in some, and to a brownish in others. The eggs are thickly marked all over with brown so dark as to be almost black; the markings are in irregular, sharply defined spots, small splashes, and fine dots. In some specimens the markings show a tendency to run into fine lines, and in these are smallest, darkest, most numerous and most sharply outlined;

but ordinarily the distinctive splashed character is maintained. Commonly the markings are rather larger, and, consequently more thickly set on the larger part of the egg, where there is also some tendency to run together, though scarcely to form a ring around the butt; but in none of the specimens examined was the pointed end free from spots. Here and there may usually be observed a few pale obsolete spots, as noticed in the Terns' eggs, but they are fewer and much less conspicuous, and in fact are hardly to be detected without close scrutiny.

RAMBLES IN FLORIDA.

BY R. E. C. STEARNS.

PART II.

THE trip across Florida, from the Atlantic Ocean to the Gulf of Mexico, is made by railroad. Rising with the birds and eating an early breakfast, a ten minutes walk takes us to the depot, which is about a mile from the hotels. There is no commotion or hustling, no noise of many hackmen nor crowding of passengers, neither any difficulty in finding a seat; a single car is sufficient to accommodate the few persons that have occasion to travel. Of the small number, probably one-half will stop at stations by the way; the principal business of the road is the transportation of freight, and were it not for the extensive business in the forwarding of merchandise, consisting of cotton, rosin, sugar, lumber, etc., on account of the steamship connections which form, together with this road, a through line from New Orleans to New York, by which much time is saved compared with the other routes, it would, doubtless, prove unprofitable to its proprietors.

The ride from the Ocean to the Gulf absorbs nearly a day, for it will be supper time when we reach Way Key. The